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Applicants : Franklin E. Boyer, Timothy B. Demers,
and Bruce A. Blackwell

For : ELECTRONIC-MAIL REMINDER FOR AN INTERNET
TELEVISION PROGRAM GUIDE

Hon. Assistant Commissioner
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TRANSMITTAL LETTER FOR UNEXECUTED
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Title : ELECTRONIC-MAIL REMINDER FOR AN INTERNET
TELEVISION PROGRAM GUIDE

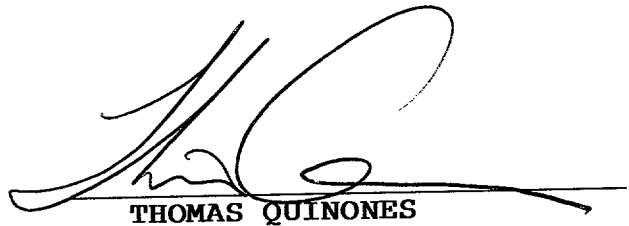
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ELECTRONIC-MAIL REMINDER FOR AN
INTERNET TELEVISION PROGRAM GUIDE

Background of the Invention

This invention relates to the Internet, and
5 more particularly, to techniques for reminding a user
via electronic mail (e-mail) of scheduled television
programs displayed on an Internet television program
guide.

Cable, satellite, and broadcast television
10 systems provide viewers with a large number of
television channels. Viewers have traditionally had to
consult preprinted television program listings to
determine which programs were scheduled to be broadcast
on a particular day and at a particular time.
15 Technological advances have allowed more convenient and
advanced program guide services to be developed.
For example, passive television-based program guides
have been developed that allow television viewers to
view television program listings directly on their
20 television sets. In addition, interactive television
program guide services have been developed that allow a
service provider to deliver television program listings
data to a user's set-top box. An interactive program
guide application in the set-top box allows the user to

display the television program listings on the user's television set. More recently, television program guide systems have been developed that provide television program listings over the Internet.

5 With such an Internet television program guide system, users with personal computers or integrated personal computers and televisions (PC/TVS) can obtain television program listings on-line. In addition, the users of Internet television program
10 guides are able to view promotional video clips, interview segments, audio clips, and other multimedia material related to a given television program.

 Although Internet television program guides provide users with a number of useful features, users
15 are still faced with the problem of missing the television programs that they desire to watch because of not remembering when the program is to be broadcast on television. Users must often refer back to the program listings to determine when desired programs are
20 to air.

 It is therefore an object of the present invention to provide a way to remind users of Internet television program guides when certain television programs are to be aired.

25 Summary of the Invention

 This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an Internet television program guide electronic-mail (e-mail) reminder system.
30 The system sends e-mail messages to users to remind the

users when selected television programs are to be aired.

Television program information and related data for an Internet television program guide are
5 provided to a web server from a computer system which may be maintained by a service provider. The web server provides this information to the user's multimedia system via an Internet communications link. The user's multimedia system may include a personal
10 computer, an integrated personal computer and television, or an Internet capable set-top box and a television.

The program information and related data are preferably provided to the user's multimedia system in
15 the form of one or more web pages. Program guide listings may be displayed in a grid format organized in channel order from top to bottom and by broadcast time from left to right. Web browser cursors allow the user to scroll through the listings to locate programs at
20 different times in the day or different days in the month.

If a user selects a program or pay-per-view event from the program listings, additional information related to the program or event may be displayed in a
25 program information box. In addition to viewing further information on the program selected, the user may order an e-mail reminder message to remind the user when the selected program will be broadcast. Options are provided that allow the user to determine when and
30 how many messages will be generated and received. Before the scheduled broadcast time of each selected

program, the system sends an e-mail message to the user that reminds the user of the program.

If desired, the user may order e-mail reminder messages without first viewing the program listings. This may be accomplished by directly entering the title of a television program for which reminders are to be ordered. This approach is useful when the user knows the program title and does not wish to consult the program listings or when the user knows the program title but does not know the location of the program in the program listings.

The user may also view a list of all currently requested e-mail reminders. Information such as the program name, type of e-mail reminder, and the date and time the request was submitted may be displayed on the list for each reminder. Entries may be added to the current reminder list as soon as the user submits a new request. In addition, the user may cancel reminder entries if the user no longer wishes to be reminded of that program.

In another aspect of the invention, e-mail reminder messages may be ordered and generated to remind a user when scheduled pay-per-view programs will be broadcast.

In yet another aspect of the invention, e-mail reminders may be ordered and generated based on other preferences which the user can specify.

Further features of the invention, its nature and various advantages will be more apparent from the accompanying drawings and the following detailed descriptions of the preferred embodiments.

Brief Description of the Drawings

FIG. 1 is a diagram of an Internet television program guide system in accordance with the present invention.

5 FIG. 2 is a diagram of an illustrative web page containing television program guide listings and e-mail reminder options in accordance with the present invention.

10 FIG. 3 is a diagram of an illustrative e-mail reminder page that allows a user to enter information for ordering e-mail reminders in accordance with the present invention.

15 FIG. 4 is a diagram of an illustrative program information web page that contains information on a program selected by the user and that allows the user to order an e-mail reminder in accordance with the present invention.

20 FIG. 5 is a diagram of an illustrative e-mail reminder page that allows the user to enter more specific information for ordering e-mail reminders in accordance with the present invention.

 FIG. 6 is a diagram of an illustrative e-mail reminder message in accordance with the present invention.

25 FIG. 7 is a diagram of an illustrative e-mail reminder page listing all current e-mail reminder orders in accordance with the present invention.

30 FIG. 8 is a diagram of an illustrative e-mail reminder page that allows a user to enter a program title and to select among various options when ordering an e-mail reminder in accordance with the present invention.

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FIG. 9 is a diagram of an illustrative web page that allows a user to order a pay-per-view event and an e-mail reminder in accordance with the present invention.

5 FIG. 10 is a site map showing options that may be selected when ordering e-mail reminder messages via an Internet television program guide in accordance with the present invention.

10 FIG. 11 is a diagram of an illustrative web page that allows a user to select among various preferences when ordering an e-mail reminder in accordance with the present invention.

15 FIG. 12 is a diagram of an illustrative e-mail reminder message in accordance with the present invention.

FIG. 13 is a diagram of an illustrative e-mail reminder page that allows the user to specify various program genres when ordering an e-mail reminder in accordance with the present invention.

20 FIG. 14 is a diagram of an illustrative e-mail reminder page that allows the user to enter an actor when ordering an e-mail reminder in accordance with the present invention.

25 FIG. 15 is a diagram of an illustrative e-mail reminder page that allows the user to enter an exact title when ordering an e-mail reminder in accordance with the present invention.

30 FIG. 16 is a diagram of an illustrative e-mail reminder page that allows the user to enter a partial title when ordering an e-mail reminder in accordance with the present invention.

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Detailed Description of the Preferred Embodiments

An Internet television program guide system 10 in accordance with the present invention is shown in FIG. 1. Television program information is stored in media library 12 and data server 14. Media library 12 preferably contains an array of compact disc read only memory (CD-ROM) disks, digital video disks (DVDs), or other suitable media for storing multimedia content. Media library 12 contains television program clips and related interviews and reviews. The television program information stored in media library 12 is primarily video-based. Data server 14 maintains various databases of television program information. For example, data server 14 may have a remote media database containing descriptions of videos in media library 12. Data server 14 may also have a database containing information on standard titles, a pay per view database containing information regarding pay-per-view events, and a scheduling information database. Data server 14 may also have a cable system operator database containing channel lineups, information on the time zone of the operator, weather data for the operator's region, data on the zip codes in the cable system operator's area, etc. Other databases may be supported by data server 14, as desired. The television program information in data server 14 is primarily in non-video formats.

Media library 12 and data server 14 may be interconnected with transmission server 16 via internal network 18. Media library 12, data server 14, network 18, and transmission server 16 make up computer system 19. Television program information may be stored on

Television program information and related data may be transferred from transmission server 16 to web server 20 via communications link 22. Communications link 22 may be part of an internal network or may be a standard dedicated communications link. Web server 20 may be connected to the Internet 24 via communications link 26. Communications link 26 is preferably a telephone line or other suitable Internet communications path.

1 If transmission server 16 and web server 20
2 are separate devices, as shown in FIG. 1, transmission
3 server 16 can be used as a common data processing
4 facility for other applications which use the type of
5 television program data stored on transmission server
6 16. If desired, the functions of transmission server
7 16 and web server 20 can be integrated in a single
8 machine. The web server configuration of FIG. 1 is
9 illustrative only. Any other suitable web server
10 configuration may be used if desired. For example, web
11 servers that are located at the facilities of able
12 system operators may be used in conjunction with or
13 instead of web servers such as web server 20.

Web server 20 uses standard protocols such as the TCP/IP (Transmission Control Protocol/ Internet Protocol) and hypertext transfer protocol to make the television program information available over the Internet 24 to users at various multimedia systems such as multimedia systems 28, 30, and 32 via communications links 34, 36, and 38. Communications links 34, 36, and 38 are Internet links formed from telephone lines, radio-frequency (RF) links, cable modem links, satellite dish links, combinations of links such as these, or any other suitable Internet connection paths.

Multimedia system 28 has personal computer 40 with Internet access provided via Internet communications link 34.

Multimedia system 30 has an integrated personal computer and television 46, such as the Gateway 2000 Destination® PC-TV hybrid available from Gateway 2000 Inc. of North Sioux City, South Dakota. Television signals are provided at input 48. Internet access is provided via Internet communications link 36.

Multimedia system 32 has an Internet capable set-top box 50. Set-top box 50 may use the TV OnLine® set-top box application software of WorldGate Corporation, which may be implemented on set-top boxes such as the CFT-2200® of General Instrument Corporation of Hatboro, Pennsylvania and the 8600x® of Scientific Atlanta of Atlanta, Georgia. Set-top box 50 receives television signals via input 52. Internet access is provided via Internet communications link 38. Video display signals containing television and Internet information are provided to television 54 via path 56.

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contains the program title (e.g., Primal Fear), the running time of the program (e.g., 2:09), a brief description of the program (e.g., A hot shot ...), and a description of the program type or genre (e.g., drama movie). If the user desires to view additional information relating to the selected program, the user may click on "closer look" icon 238 (or alternatively, on any portion of box 236), which takes the user to program information page 240 (FIG. 4). Program information page 240 allows the user to obtain additional information such as video clips and interview segments on the selected program.

Another component of program information box 236 is e-mail reminder box 235. This box is displayed concurrently with program information box 236 whenever the user has selected a program or event from program listings 220. If e-mail reminder box 235 is selected, the user is presented with an e-mail reminder page such as e-mail reminder page 410 of FIG. 3. E-mail reminder page 410 contains user-selectable options that the user may complete when ordering an e-mail reminder message to remind the user when a particular television program is to be broadcast. As defined herein, such uses of the term "broadcast" refer to the process of airing television programs by traditional television broadcast techniques, cable systems, or satellite systems.

Fields 414 and 418 of e-mail reminder page 410 allows the user to enter the name and e-mail address, respectively, of the person the e-mail reminder message is to be sent to. If desired, the user's name and e-mail address may be automatically entered in fields 414 and 418 based on information

previously provided to the system (e.g., information provided when the user registered with the Internet television program guide service).

If the user is browsing program listings from a computer located at the user's office, the user may wish to have e-mail reminders addressed to his home (i.e., using his personal Internet access account and the e-mail address for the multimedia system at home). Alternatively, the user may wish to have e-mail reminders sent to an office e-mail address. If the user has a common e-mail address for both home and the office, e-mail reminders may be accessed at either location. If desired, the system may provide more than one field 418 (e.g., field 421) so that e-mail reminders may be sent to more than one e-mail address.

E-mail reminder page 410 may provide several user-selectable options that specify when and how often the user will be reminded of the airing of selected television programs. For example, e-mail reminder page 410 may contain remind me box 424. Selecting an option in remind me box 424 allows the user to specify how often the system will generate and send a reminder message for the user. As shown in FIG. 3, the options in remind me box 424 may allow the user to be reminded of the selected program only once, each time the program is broadcast in a week, each time the program is broadcast in a month, or at some other specified time. If "other" in remind me box 424 is selected, the user is presented with page 510 shown in FIG. 5. Page 510 allows the user to specify the time period during which reminder messages will be generated and sent.

The user may specify a time period by completing box 513.

E-mail reminder page 410 of FIG. 3 may also contain how soon box 430. Selecting an option in box 5 430 allows the user to indicate how soon before the broadcast of the scheduled program reminder messages are to be generated and sent to the user. As shown in FIG. 3, box 430 may contain options that allow the user to be reminded 1 hour, 1 day, 2 days, or another amount 10 of time before the selected program is broadcast. If "other" is selected in box 430, the user is presented with page 510 of FIG. 5, which allows the user to specify a desired lead time before a scheduled event by completing box 515.

15 Upon completing page 510 of FIG. 5, the user may submit the information that has been entered by selecting enter button 517. The user may exit page 510 without submitting the information by selecting exit button 519. If the user selects either enter button 20 517 or exit button 519, the user is returned to e-mail reminder page 410.

The options the user selects in boxes 424 and 430 of page 410 determine, respectively, how often and when e-mail reminder messages will be sent. For 25 example, a user may select a program from program listings 220 (FIG. 2) that will be broadcast five times during the upcoming week. When the user selects e-mail reminder box 235 of FIG. 2, the user is then presented with e-mail reminder page 410 of FIG. 3. If the user 30 selects the "1 hour" option in box 430 and the "each time this week" option in remind me box 424, the user will receive five e-mail reminder messages (assuming

fields 414 and 418 are completed with the user's own
information) 1 hour before each broadcast of the
program during that week. The messages may be sent
from web server 20 to the user's multimedia system
5 using standard e-mail techniques.

At any time during the completion of e-mail
reminder screen 410 (FIG. 3), the user may cancel the
e-mail reminder order by selecting cancel box 480.
Selecting cancel box 480 returns the user to display
10 218 of FIG. 2.

Upon completing reminder screen 410, the user
may submit a reminder order for processing by selecting
submit box 440. Selecting submit box 440 directs the
user's multimedia system 28, 30, or 32 of FIG. 1 to
15 send the order to web server 20 (or another such
suitable web server) via communications links 34, 36,
or 38, Internet 24, and communications link 26. The
order is processed and a reminder message is generated
by web server 20 and transmitted to the user's
20 multimedia system by e-mail at the appropriate time.
Depending on the television program and user-selectable
options selected, the user may request and receive one
or more e-mail reminder messages.

A typical e-mail reminder message is shown in
25 FIG. 6. The message may display the e-mail address of
the person the message is being sent to (611), the name
of the television program that the person is being
reminded of (613), and a reminder message indicating
"DON'T FORGET" along with information on when the
30 television program is to broadcast (615). The user may
delete the message by selecting delete button 618. An
advertisement 620 (text, graphics, etc.) may be

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included in or attached to the reminder message if desired. The advertisement may be provided using information stored in computer system 19.

Another aspect of the invention relates to managing one's reminders. If desired, e-mail reminder page 410 of FIG. 3 may contain view current reminders box 483. If view current reminders box 483 is selected, the user may be presented with current reminders page 710 of FIG. 7. Current reminders page 710 contains a list of all the user's currently requested e-mail reminders. Information such as the program name, type of e-mail reminder, and the date and time submitted may be displayed.

For example, a current reminder entry for the program "Primal Fear" may be displayed as shown in FIG. 7. This reminder was submitted by the user on November 1, 1997 at 3:03 p.m. and is set to remind the user one hour before each broadcast during the week beginning November 1, 1997. Entries may be added to the current reminder list as soon as the user submits each request (e.g., by clicking on submit button 440 from e-mail reminder page 410 of FIG. 3). If the user wishes to cancel a current reminder that the user has previously ordered, the user may highlight the desired entry on the screen with highlight region 713 and click on cancel button 712. After clicking on cancel button 712, the highlighted entry is deleted from the current reminder list and the user will no longer be reminded of the broadcasts of that program. The user may return to page 410 by clicking on exit button 714.

Another way that the user may reach e-mail reminder page 410 of FIG. 3 is by clicking on e-mail

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reminder button 365 in program information page 240 of FIG. 4. Another way that the user may reach current reminders page 710 of FIG. 7 is by clicking on view current reminders button 233 in display 218 of FIG. 2.

5 Another component of display 218 is new reminders box 231. New reminders box 231, which may be adjacent to the program navigation controls of display 218, allows the user to order e-mail reminder messages without using program listings 220. If new reminders
10 box 231 is selected, the user is presented with new reminders page 810 of FIG. 8. New reminders page 810 contains user-selectable options similar to the options contained in e-mail reminder page 410 of FIG. 3. For example, new reminders page 810 contains a user
15 information box 813, a how soon box 830, and a remind me box 824. However, new reminders page 810, allows the user to enter the title of a television program for which reminders are to be ordered directly in box 818 without searching program listings 220. This is useful
20 when the user knows the program title and does not wish to consult program listings 220 or when the user knows the program title but not know the location of the program in program listings 220.

 If the user does not enter the exact title of
25 the television program in new reminders screen 810, the data of program listings 220 or any other suitable set of television program listings data may be scanned to find the program or programs that most closely match the program title indicated by the user. If several
30 matches are found, a list of the program matches may be presented to the user and the user may choose the actual program desired. Once the user has chosen a

program from the list, the program title in box 818 may be automatically updated.

The user may exit new reminders screen 810 at any time by clicking on exit button 880. Selecting
5 exit button 880 will return the user to display 218 of FIG. 2.

Upon completing new reminders screen 810, the user may submit the reminder order for processing by selecting submit box 840. Selecting submit box 840
10 allows program guide system 10 (FIG. 1) to process the request. The request may be processed in the same way a reminder request may be processed when ordered from reminder screen 410 of FIG. 3.

The user may reach current reminders page 710
15 of FIG. 7 from new reminders page 810 of FIG. 8 by clicking on view current reminders button 883.

E-mail reminder messages may also be ordered and generated to remind the user of when scheduled pay-per-view programs will be broadcast. Program
20 information page 240 of FIG. 4 contains information related to the program selected by the user on previous pages. For example, if the user has selected a pay-per-view event from program listings 220 and then selects the closer look icon 238, program information
25 page 240 will contain more information relating to that pay-per-view event.

Program information page 240 of FIG. 4 contains program listings 366, which provide title, channel, and time and date information for the selected
30 program. If the user has selected a pay-per-view event in order to arrive at program information page 240, program listings 366 displays additional broadcast

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information for that pay-per-view program. When the user clicks on a pay-per-view entry in program listings 366, the user is taken to order page 336 (FIG. 9).

As shown in FIG. 9, order page 336 contains
5 instructions 368 on how to order a pay-per-view event. Order page 336 also contains telephone number query box 370 and personal identification number box 372. The user may place an order for a pay-per-view event by clicking on place order button 374. Information
10 entered by the user into boxes 370 and 372 may be used to verify the user's identity and account status. Once the user's information has been verified, the selected pay-per-view event may be delivered to the user's multimedia system.

15 The user may request an e-mail reminder message for the selected pay-per-view event by clicking on e-mail reminder button 377. When the user selects e-mail reminder button 377, the user is presented with e-mail reminder screen 410 of FIG. 3. After the user
20 has completed e-mail reminder screen 410, the user may click on submit button 440 to process the request.

The way in which pay-per-view event orders are processed depends on the particular hardware used to deliver such services to the user. In system 10 of
25 FIG. 1, web servers such as web server 20 may be located at cable system headends to receive and process pay-per-view orders submitted using order pages such as order page 336. After processing an order, the web server can direct conventional pay-per-view equipment
30 at the cable system headend to authorize the display of the ordered pay-per-view event using set-top box 50 or a similar integrated component. Selecting pay-per-view

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e-mail reminder button 377 directs user's multimedia system 32 of FIG. 1 (or a similar set-top box based system) to send the order to the Internet 24 via communications link 38. The order is then transmitted to web server 20 via communications link 26. The order may be processed and the reminder message generated by web server 20, then transmitted to the user's multimedia system 32 by e-mail. Depending on the pay-per-view event and user-selectable options selected, the user may request and receive one or more such e-mail reminder messages for pay-per-view events.

If program information page 240 of FIG. 4 details a pay-per-view event, a pay-per-view e-mail reminder message may be ordered from program information page 240 by selecting e-mail reminder button 365 (FIG. 4). Selecting e-mail reminder button 365 will again take the user to e-mail reminder page 410 of FIG. 3. There the user may place an e-mail reminder order using the same steps used for a non pay-per-view television program reminder request.

FIG. 10 is a site map showing the interrelationship of the web pages used to provide the features of the e-mail message program reminder service. The service can initially be accessed from the program guide menu page 218 (FIG. 2). When the user selects a scheduled television program, program information box 236 displays information on the selected item and displays e-mail reminder button 235. Similarly, when the user selects a scheduled pay-per-view event, program information box 236 displays information on the selected pay-per-view event and displays e-mail reminder button 235. Selecting the e-

program title directly by completing field 818. The user may, by selecting view current reminders button 883 (FIG. 8), access current reminders page 710 or submit an order by selecting submit button 840
5 (FIG. 8).

In another aspect of the invention, the user may enter other e-mail reminder preferences by clicking on user preference profile button 244, as shown in FIG. 2. If user preference profile button 244 is
10 selected, the user is presented with user preference profile page 910 of FIG. 11. User preference profile page 910 may contain clickable options 913 allowing the user to further customize e-mail reminder messages that are generated and received. This allows the user to
15 order e-mail reminder messages without using program listings 220 of FIG. 2. For example, if the user clicks on "Genre's" from clickable options 913, the user may be presented with web page 950 of FIG. 13. Web page 950 allows the user to specify a particular
20 genre of television programs for which reminders are to be ordered. The data of program listings 220 or any other suitable set of television program listings data may then be scanned to find the programs having that genre. Similarly, the user may click on "Actor's",
25 "Exact Title's", or "Partial Titles" from clickable options 913 whereby the user may be presented with web pages shown in FIGS. 14, 15, and 16, respectively. The user may specify additional preferences to further customize the e-mail reminder message that is generated
30 and received. Also the user may specify a lead time and time period during which reminder messages will be generated and received.

A typical customized e-mail reminder message is shown in FIG. 12. The message may display television programs having the user preferences specified via user preference profile page 910.

- 5 In addition, the user may receive the information displayed in the customized e-mail reminder message of FIG. 12 without having to actually receive an e-mail message or actively browse the Internet. The user may (e.g., through an Internet active channel)
- 10 subscribe to a service that allows the user to receive the customized reminder information and have it available on the user's multimedia system based on user information 915 and debug information 918 of FIG. 11. The user may also request that the reminder information
- 15 be updated and sent to the user periodically.

The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.

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What is Claimed is:

1. An Internet television program guide e-mail reminder system for providing e-mail message reminders of scheduled television events to a user at a multimedia system over the Internet comprising:

means for providing television program listings over the Internet;

means for selecting a television program from the television program listings provided over the Internet; and

means for providing e-mail reminders to the multimedia system over the Internet that remind the user when the television program is to be broadcast.

2. The system defined in claim 1 further comprising means for providing an e-mail reminder option which the user selects to order e-mail reminders.

3. The system defined in claim 2 wherein the means for providing the e-mail reminder option further comprises means for presenting an e-mail reminder web page when the user selects the e-mail reminder option.

4. The system defined in claim 3 wherein the means for presenting the e-mail reminder web page further comprises means for providing selectable options displayed on the e-mail reminder web page when the user is presented with the e-mail reminder web page.

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5. The system defined in claim 4 wherein the selectable option is a how soon option for determining how soon before the broadcast of the television program the e-mail reminder message is to be generated and sent to the user.

6. The system defined in claim 5 wherein the how soon option further comprises means for presenting a how soon web page.

7. The system defined in claim 4 wherein the selectable option is a how often option for determining how often the e-mail reminder message is to be generated and sent to the user.

8. The system defined in claim 7 wherein the how often option further comprises means for presenting a how often web page.

9. The system defined in claim 1 further comprising means for providing a view current reminders option which the user selects to receive a list of current e-mail reminder orders.

10. The system defined in claim 9 wherein the means for providing the view current reminders option further comprises means for presenting a view current reminders web page when the user selects the view current reminders option.

11. The system defined in claim 1 further comprising means for providing a new reminders option

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which the user selects to order an e-mail reminder message by entering a program title.

12. The system defined in claim 11 wherein the means for providing the new reminders option further comprises means for presenting a new reminders web page when the user selects the new reminders option.

13. The system defined in claim 12 wherein the means for presenting the new reminders web page further comprises means for providing selectable options displayed on the new reminders web page when the user is presented with the new reminders web page.

14. The system defined in claim 13 wherein the selectable option is a how soon option for determining how soon before the broadcast of the television program the e-mail reminder message is to be generated and sent to the user.

15. The system defined in claim 14 wherein the how soon option further comprises means for presenting a how soon web page.

16. The system defined in claim 13 wherein the selectable option is a how often option for determining how often the e-mail reminder message is to be generated and sent to the user.

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17. The system defined in claim 16 wherein the how often option further comprises means for presenting a how often web page.

18. The system defined in claim 1 further comprising means for providing a pay-per-view order web page.

19. The system defined in claim 18 wherein the means for providing the pay-per-view order web page further comprises means for providing an e-mail reminder option which the user selects to order an e-mail reminder message.

20. A method for providing e-mail message reminders of scheduled television events to a user at a multimedia system over the Internet using an Internet television program guide system, the method comprising the steps of:

providing television program listings over the Internet;

selecting a television program from the television program listings provided over the Internet; and

providing e-mail reminders to the multimedia system over the Internet that remind the user when the television program is to be broadcast.

21. The method defined in claim 20 further comprising the step of providing an e-mail reminder option which the user selects to order e-mail reminders.

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22. The method defined in claim 21 wherein the step of providing the e-mail reminder option further comprises the step of presenting an e-mail reminder web page when the user selects the e-mail reminder option.

23. The method defined in claim 22 wherein the step of presenting the e-mail reminder web page further comprises the step of providing selectable options displayed on the e-mail reminder web page when the user is presented with the e-mail reminder web page.

24. The method defined in claim 23 wherein the selectable option is a how soon option for determining how soon before the broadcast of the television program the e-mail reminder message is to be generated and sent to the user.

25. The method defined in claim 24 wherein the how soon option further comprises the step of presenting a how soon web page.

26. The method defined in claim 23 wherein the selectable option is a how often option for determining how often the e-mail reminder message is to be generated and sent to the user.

27. The method defined in claim 26 wherein the how often option further comprises the step of presenting a how often web page.

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28. The method defined in claim 20 further comprising the step of providing a view current reminders option which the user selects to receive a list of current e-mail reminder orders.

29. The method defined in claim 28 wherein the step of providing the view current reminders option further comprises the step of presenting a view current reminders web page when the user selects the view current reminders option.

30. The method defined in claim 20 further comprising the step of providing a new reminders option which the user selects to order an e-mail reminder message by entering a program title.

31. The method defined in claim 30 wherein the step of providing the new reminders option further comprises the step of presenting a new reminders web page when the user selects the new reminders option.

32. The method defined in claim 31 wherein the step of presenting the new reminders web page further comprises the step of providing selectable options displayed on the new reminders web page when the user is presented with the new reminders web page.

33. The method defined in claim 32 wherein the selectable option is a how soon option for determining how soon before the broadcast of the television program the e-mail reminder message is to be generated and sent to the user.

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34. The method defined in claim 33 wherein the how soon option further comprises the step of presenting a how soon web page.

35. The method defined in claim 32 wherein the selectable option is a how often option for determining how often the e-mail reminder message is to be generated and sent to the user.

36. The method defined in claim 35 wherein the how often option further comprises the step of presenting a how often web page.

37. The method defined in claim 20 further comprising the step of providing a pay-per-view order web page.

38. The method defined in claim 37 wherein the step of providing the pay-per-view order web page further comprises the step of providing an e-mail reminder option which the user selects to order an e-mail reminder message.

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Abstract of the Disclosure

An Internet television program guide electronic-mail (e-mail) reminder system is provided. The system allows a user at a multimedia system to
5 order and receive e-mail message reminders of scheduled television events over the Internet. The user can order e-mail reminders after selecting a program from the program listings or by supplying [a program title directly] specific user program preferences without
10 having to consult the program listings. The user can specify when and how often the reminders will be generated and received. If desired, the user can view a list of all currently requested e-mail reminders. Entries can be added to the list or the user can cancel
15 a previously ordered reminder. The user can order e-mail reminders for scheduled pay-per-view programs using the system. The user can also have reminder information periodically updated and available directly on the user's multimedia system.

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DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ELECTRONIC-MAIL REMINDER FOR AN
INTERNET TELEVISION PROGRAM GUIDE

the specification of which

☒ is attached hereto

☐ was filed on _____ as
Application Serial No. _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I do not know and do not believe that the invention was ever patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application.

I do not know and do not believe that the invention was in public use or on sale in the United States of America more than one year prior to this application.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having

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a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority
Claimed

(Number)	(Country)	(Filing Date)	[] Yes	[] No
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I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.

(Application Serial No.)	(Filing Date)
--------------------------	---------------

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
--------------------------	---------------	---

As a named inventor, I hereby appoint the following attorneys or agents to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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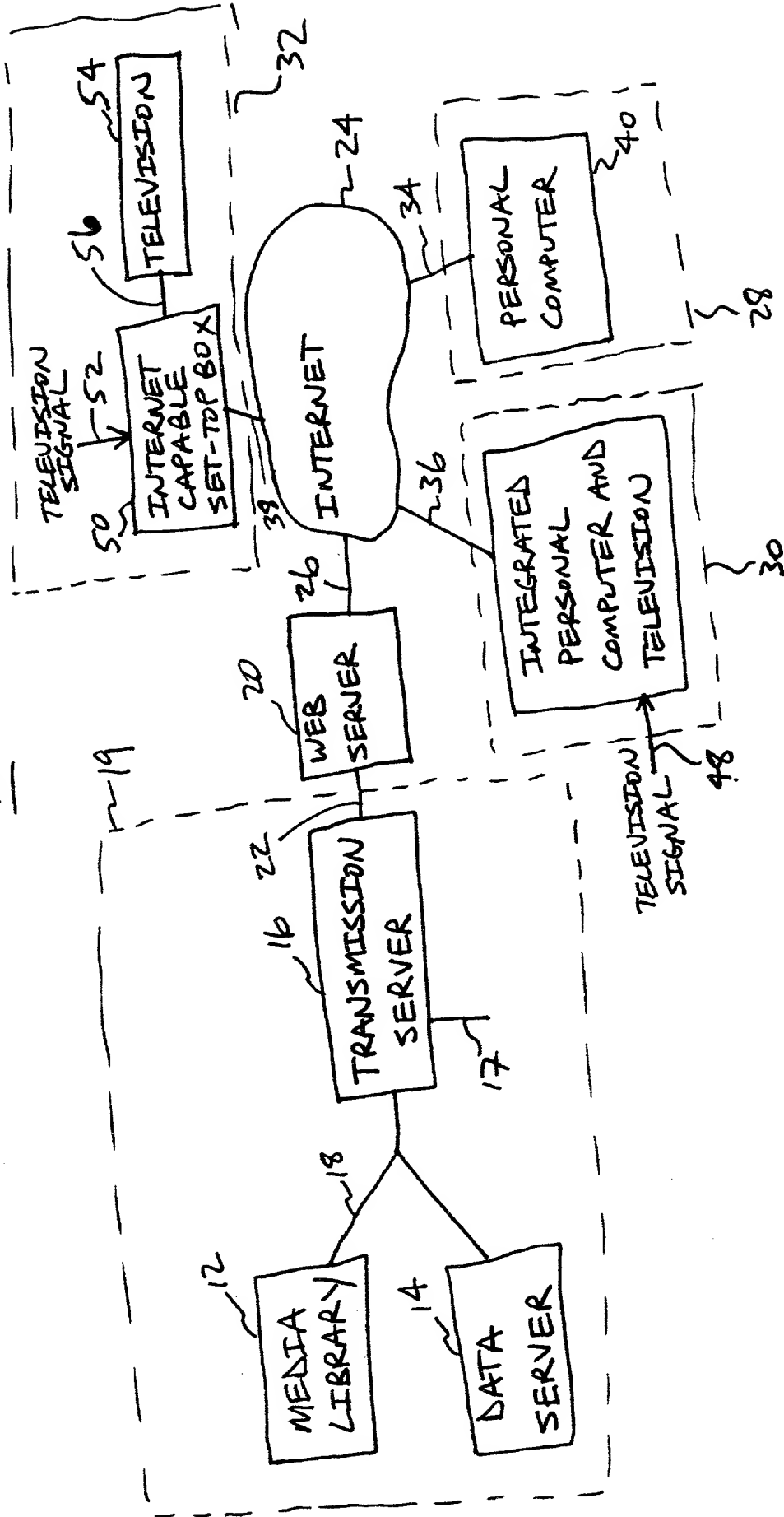


FIG. 1

UV-29

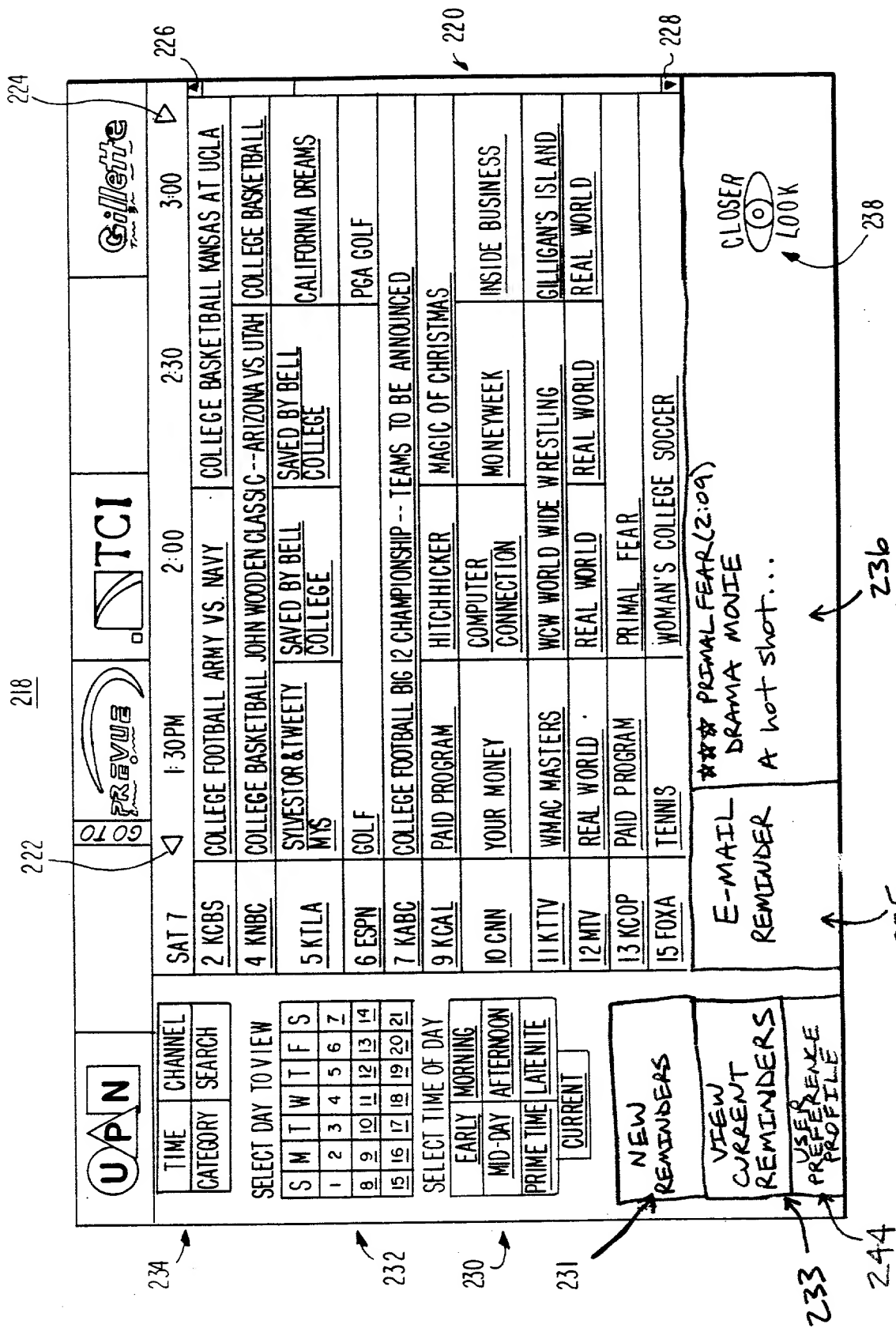


FIG. 2

410

413

Enter name: <input type="text"/> 414 Enter e-mail address: <input type="text"/> 418 address 2: <input type="text"/> 421 424		
430	How soon before event do you want to be reminded?: <input type="radio"/> 1 hour <input type="radio"/> 1 day <input type="radio"/> 2 days <input type="radio"/> other	Remind me: <input type="radio"/> This time only. <input type="radio"/> Each time this week. <input type="radio"/> Each time this month. <input type="radio"/> other
	Submit	CANCEL

FIG. 3

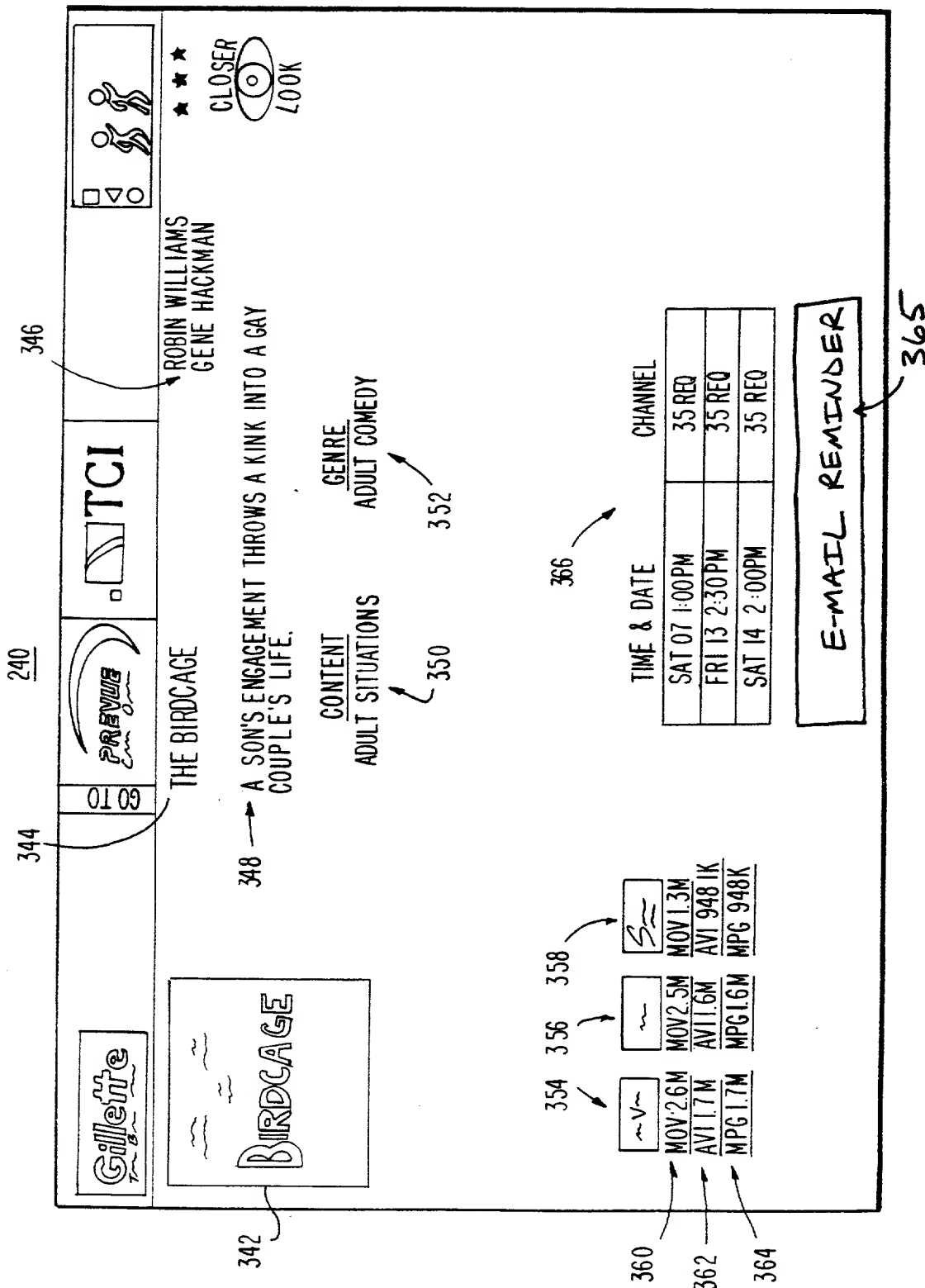


FIG. 4

510

513

Remind me each time:

<u>From:</u>	<u>To:</u>
Date: _____	Date: _____
Time: _____	Time: _____

How soon before event do you want to be reminded?

DAYS : _____

HOURS : _____

MINUTES : _____

515

	ENTER	EXIT
--	-------	------

517 519

FIG. 5

REMINDER

611 → TO: USER@AOL.COM

613 → Re: SEINFELD

615 → Message: DON'T FORGET!!!

SEINFELD IS ON
at 9:00 p.m. tonight
on channel 4.

620 → ADVERTISEMENT

DELETE

618

FIG. 6

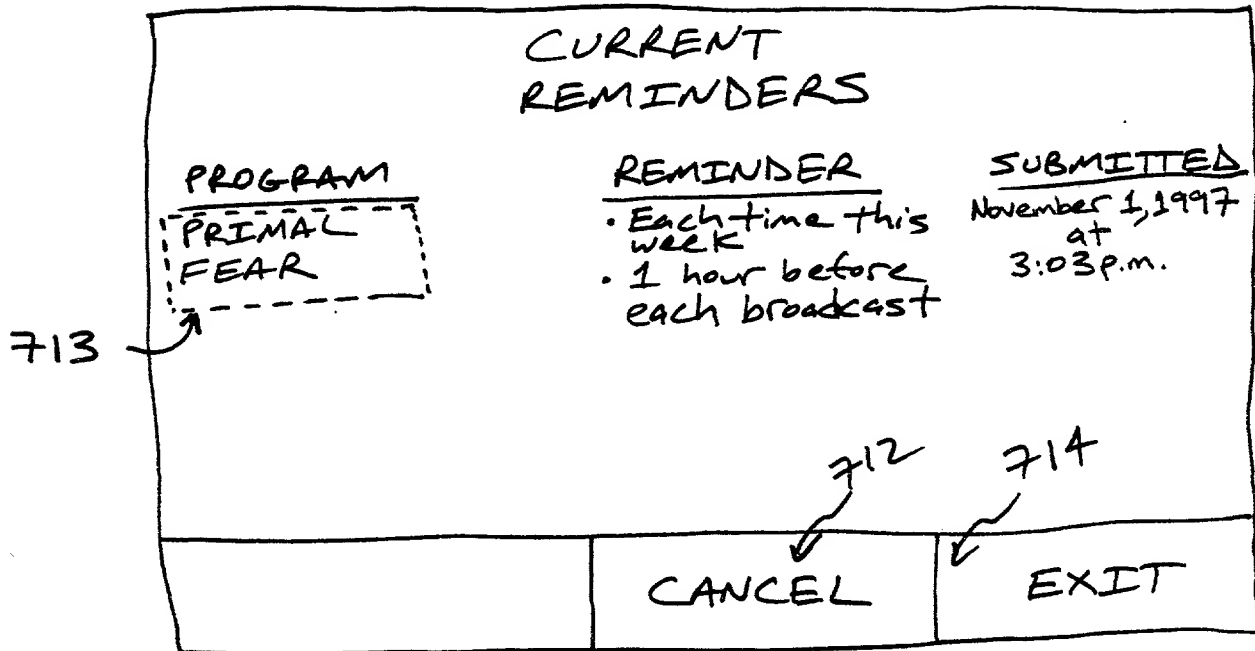
710

FIG. 7

810

NEW REMINDERS	
Enter name: <input type="text"/>	813
Enter e-mail address: <input type="text"/>	

Enter program: <input type="text"/>	818

How soon before event?:	Remind me:
<input type="radio"/> 1 hour <input type="radio"/> 2 Days	<input type="radio"/> This time only <input type="radio"/> Each time this month
<input type="radio"/> 1 Day <input type="radio"/> Other	<input type="radio"/> Each time this week <input type="radio"/> Other
824	
SUBMIT	VIEW CURRENT REMINDERS
840	883
	EXIT
	880

FIG. 8

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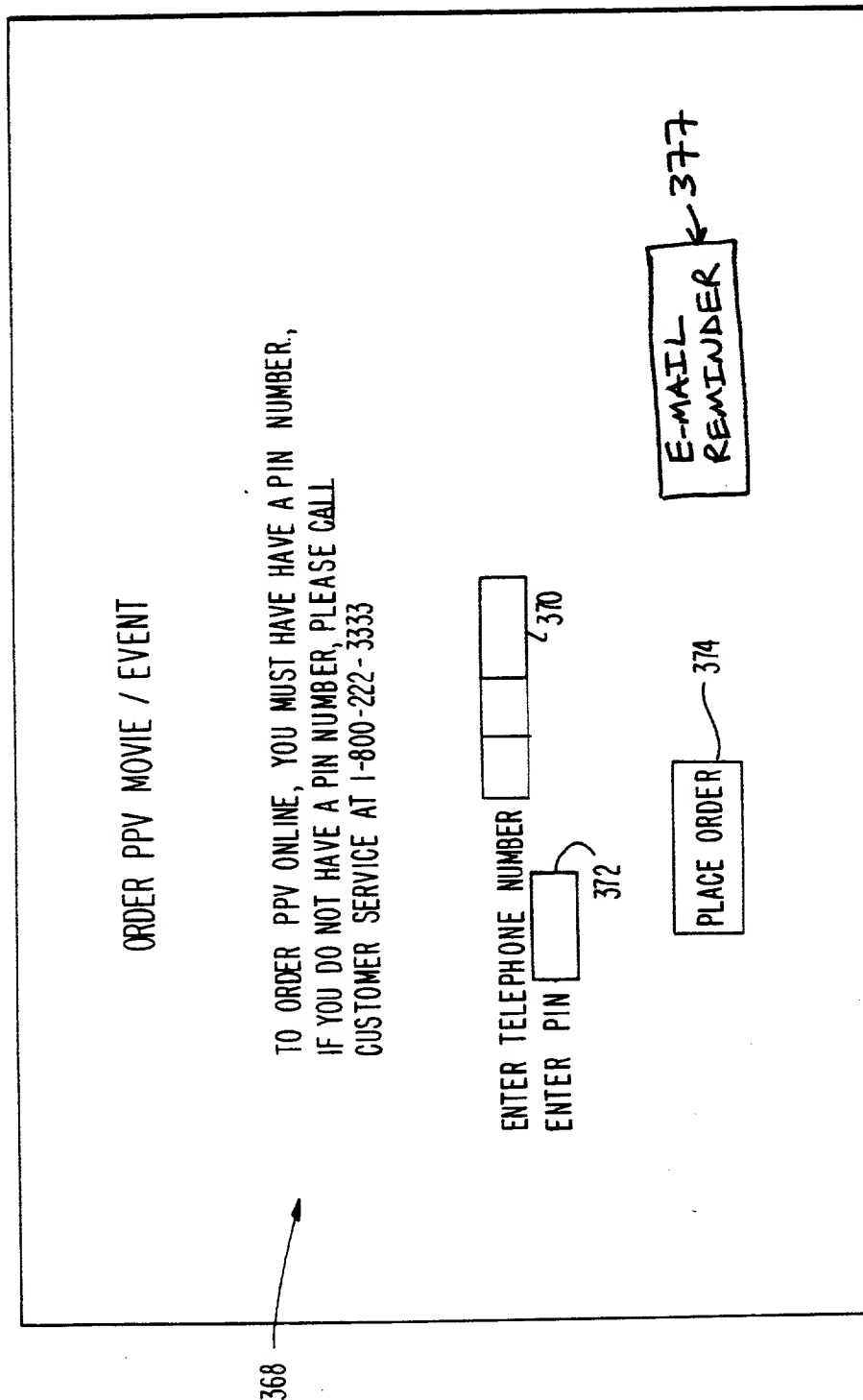


FIG. 9

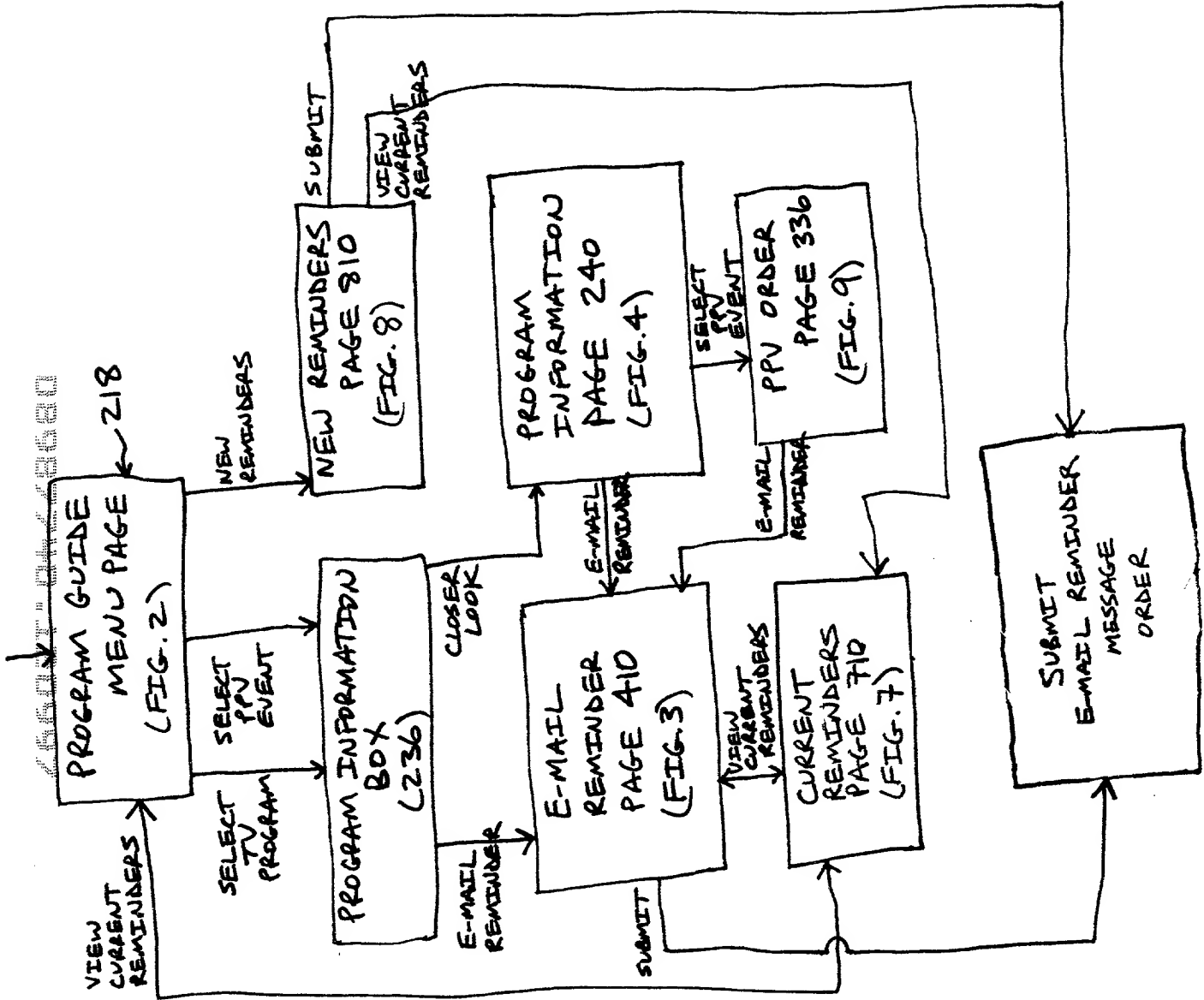


FIG. 10

910

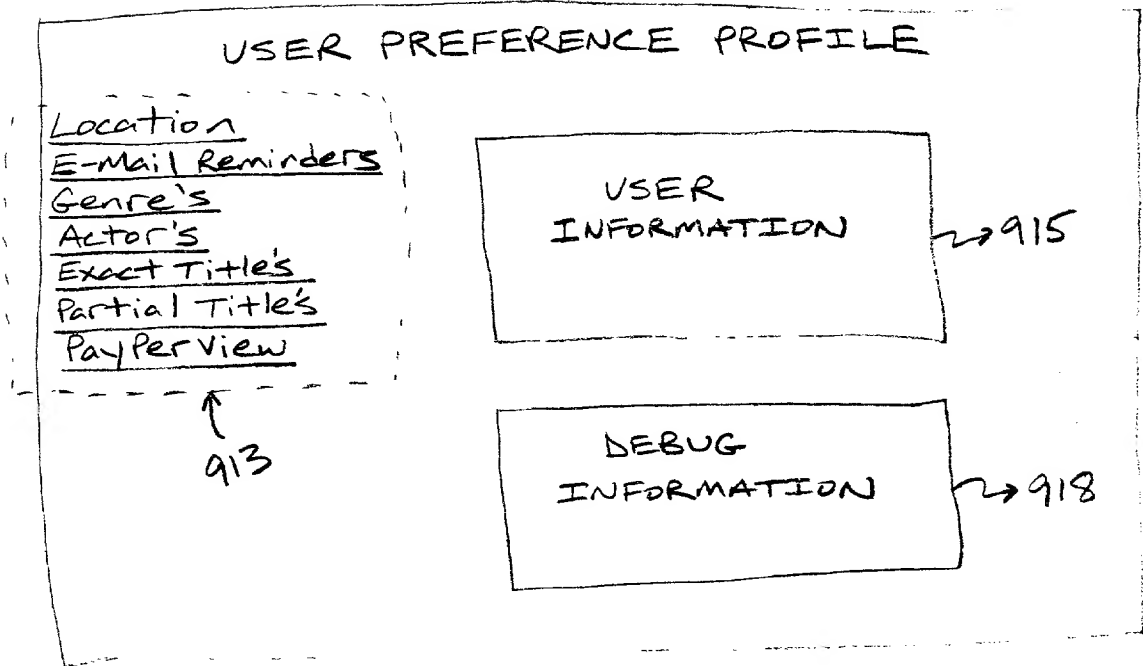


FIG. 11

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To: USER

Sent: Fri. November 21, 1997

Re: Prevue Online TV Reminder

Thank you for visiting Prevue Online!
You have some favorite shows that are coming up soon:

Cast member Peta Wilson:

Sunday

9:00 PM USA (27)

La Femme Nikita

Cast member Terry Farrell:

Saturday

2:40 AM HBO (4)

Red Sun Rising

Cast member Uma:

Sunday

12:00 PM HBO (4)

The Truth About Cats and Dogs
(Featuring Uma Thurman)

Genre science fiction:

Friday

5:00 PM SCI-FI (33)

Swamp Thing

⋮

10:15 PM AMC (25)
Saturday

Five Million Years to Earth

4:00 AM SCI-FI (33)

Retro TV

⋮

11:35 PM KOTV (6)
Sunday

Star Trek: Deep Space Nine

12:35 AM KOTV (6)

Psi Factor

⋮

1:00 PM KOTV (6)

The Rocketeer

950**Add an E-Mail Reminder Genre.**

You will receive an e-mail reminder for all shows with the previous Genre, airing in the next 48 hours (72 from Friday).

Action	<input type="checkbox"/>	Add
--------	--------------------------	-----

Action	<input type="checkbox"/>	Delete
--------	--------------------------	--------

Genre
Science Fiction
Martial Arts

FIG. 13

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E-Mail Reminders will be generated for all program's with your favorite actors, on your local system. Preview First scans your system for the next 48 hours. On Friday's we do a 3 day scan so you won't miss any action for the weekend. Don't forget to Preview First.

Actor:	<input type="text"/>				
<input type="button" value="Add"/> <input type="button" value="Delete"/>					
<table border="1"> <tr> <td>Frank's Favorite Actor's</td> </tr> <tr> <td>Uma</td> </tr> <tr> <td>Bridget Fonda</td> </tr> <tr> <td>Peta Wilson</td> </tr> </table>		Frank's Favorite Actor's	Uma	Bridget Fonda	Peta Wilson
Frank's Favorite Actor's					
Uma					
Bridget Fonda					
Peta Wilson					

FIG. 14

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E-Mail Reminders will be generated for all titles that exactly match a program on your local system. Preview First scans your system for the next 48 hours. On Friday's we do a 3 day scan so you won't miss any action for the weekend. Don't forget to Preview First.

Exact Title:	
--------------	--

Add Delete

Frank's Favorite Exact Title
The Day of the Jackal

FIG. 15

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E-Mail Reminders will be generated for all titles that exactly match a program on your local system. Prevue First scans your system for the next 48 hours. On Friday's we do a 3 day scan so you won't miss any action for the weekend. Don't forget to Prevue First.

Partial Title:	<input type="text"/>
----------------	----------------------

Frank's Favorite Partial Title
Space

FIG. 16